BASIS FOR THE AMENDMENT

Claims 54-83 have been canceled in favor of new Claims 84-86 which are further supported by Claims 54, 55, 79, 80, as originally filed, at page 10, Table 1 of the specification, and by the Examples.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 84-86 will now be active in this application.

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The rejections of Claims 54-83 are moot in view of the cancellation of these claims.

The subject matter of Claims 54, 55, 79, 80 is now included in Claim 84.

None of JP'998, JP '250, JP '890, Schaeffert, and Tanigawa, Kanoto, Kakuta, or Byrne disclose or suggest relates to an electrophotographic photoreceptor as claimed in **Claim 84**, comprising:

an electroconductive substrate which is an aluminum drum,

on the electroconductive substrate, an intermediate layer comprising titanium oxide, and

a photosensitive layer on the intermediate layer,

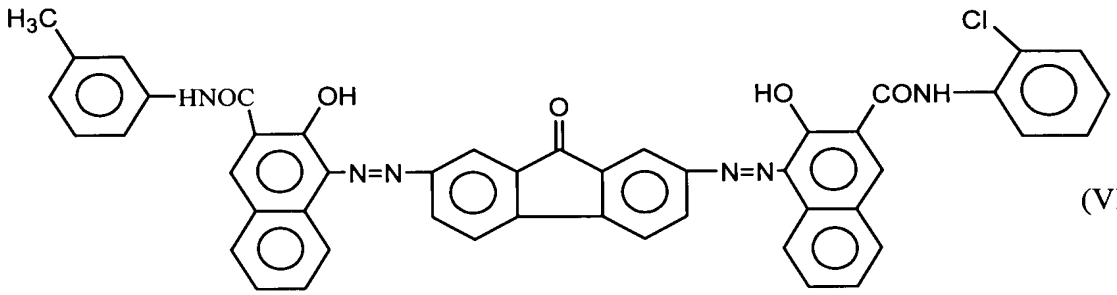
wherein said intermediate layer is obtained by coating an intermediate layer coating liquid on a peripheral surface of said aluminum drum;

wherein the photosensitive layer comprises:

a charge generation layer, and

a charge transport layer,

wherein the charge generation layer comprises, as charge generation materials which have spectral sensitivity in differing wavelength regions, **at least one phthalocyanine pigment and at least one asymmetric bisazo pigment which is a compound having the formula (VII):**



(VII)

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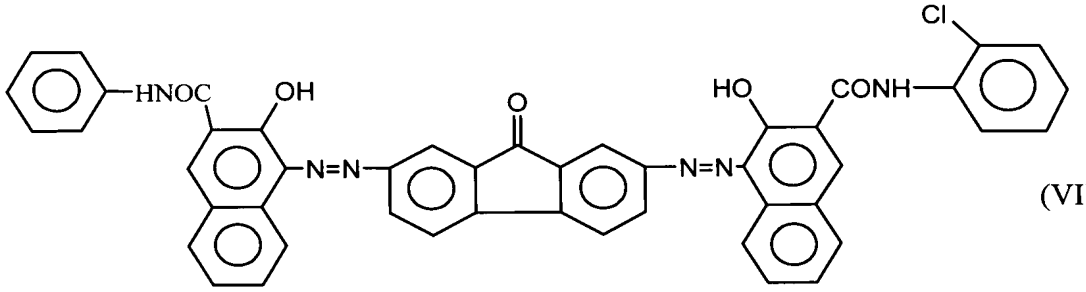
or is a compound having the formula (VIII):



(VIII)

;

wherein the phthalocyanine pigment comprises at least one of a τ-form metal-free phthalocyanine pigment or an X-form metal-free phthalocyanine pigment;

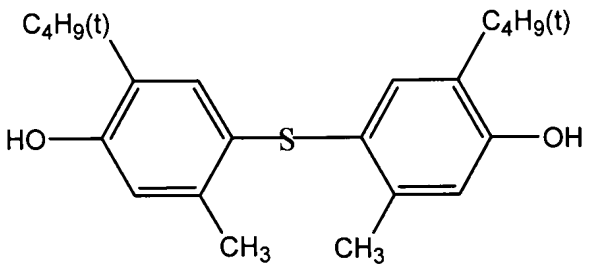
wherein the phthalocyanine pigment and the asymmetric bisazo pigment are present in the photosensitive layer in a ratio of 1:5 to 5:1 by weight;

and wherein the charge transport layer comprises from <u>0.9 to 5 parts</u> by weight of an organic sulfur-containing compound, based on 100 parts by weight of a charge transport material;

wherein said organic sulfur-containing compound is selected from the group consisting of compounds having the following formulas III-3 and III-6, S-1, S-2 and S-3:

$S\text{-}(CH_2CH_2COOC_{12}H_{25})_2$ (III-3),

$S\text{-}(CH_2CH_2COOC_{18}H_{37})_2$ (III-6),



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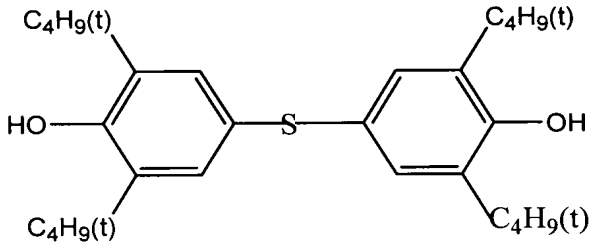

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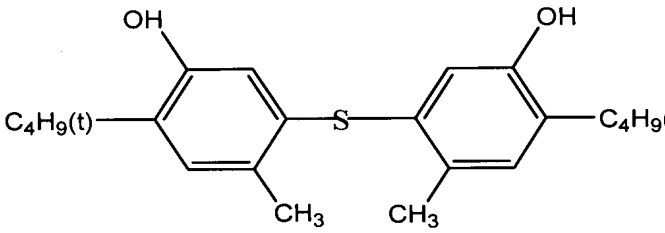


(S-3)

,

wherein n is an integer of from 8 to 25;

wherein said photoreceptor is suitable for a reverse developing method in an electrophotographic image forming apparatus which comprises a contact charger;

wherein said intermediate layer has a thickness of 3 to 10 μm.

When two or more kinds of pigments are used as charge generation materials, the spectral sensitivity range of the photosensitive layer can be widened. See page 2, lines 10-19 of the specification.

However, since two or more energy levels are formed in the charge generation layer, the characteristics of the pigments cannot be well exhibited and in addition increase of residual potential and decrease of potential of the photoreceptor cannot be avoided at the same time even when optimizing the formula of the photosensitive layer.

It is found in the present invention that by adding an organic sulfur-containing antioxidant to the photosensitive layer, a photoreceptor having a good combination of durability and resistance to light fatigue can be prepared. See page 5, line 17 to page 6, line 7 of the specification.

Specifically, the organic sulfur-containing antioxidants act effectively for the energy gap caused by use of two or more charge generation materials and dissolve or decrease the trap level while having good solubility in the binder resins and charge transport materials used for the photosensitive layer, resulting in prevention of a problem in that the material is separated there from.

The technical effects (e.g., decrease in number of black spots and prevention of occurrence of background fouling) produced by addition of an organic sulfur-containing antioxidant are clearly described in the present specification. See page 8, line 11 to page 9, line 9 and Tables 14, 15 and 16 of the specification.

Examples 6-10, 12-14 and 16 are according to the present invention as claimed in Claim 84. As can be seen from Tables 15 and 16, the photoreceptors of the present invention have good charge stability even after exposure to light and can produce good images without undesired images such as background fouling and black spots even when used for a long time. See the paragraph bridging pages 47 and 48. However, the comparative examples exhibit background fouling or black spots. See Table 16.

In contrast, JP'998, JP '250, JP '890, Schaeffert, and Tanigawa, Kanoto, Kakuta, or Byrne neither disclose nor suggest the problem caused by using two kinds of pigments having

different spectral sensitivity properties. In addition, JP '250 neither discloses nor suggests that sulfur-containing antioxidants act effectively for the energy gap caused by use of two or more charge generation materials by dissolving or decreasing the trap level. See also page 4, lines 10-12 of the specification. Therefore, there is no motivation to use an organic sulfur antioxidant described in JP '250 for the photosensitive layers of the photoreceptors of JP '890 and JP '998.

Although it is described in paragraph [0027] of JP '998 that antioxidants can be used, compounds such as hindered phenols, sulfur-containing antioxidants, phosphor-containing antioxidants, and hindered amines are merely exemplified, and there is no description of the claimed organic sulfur-containing antioxidants having the formulas III-3 and III-6, S-1, S-2 or S-3. Therefore there is no motivation to use the antioxidants.

In view of the above, the rejections of record over JP'998, JP '250, JP '890, Schaeffert, and Tanigawa, Kanoto, Kakuta, or Byrne should not be applied to new Claims 84-86.

Further, the claims of US 7,192,677 do not disclose or suggest an electrophotographic photoreceptor as claimed in **Claim 84**, comprising:

an electroconductive substrate which is an aluminum drum,

on the electroconductive substrate, an intermediate layer comprising titanium oxide, and

a photosensitive layer on the intermediate layer,

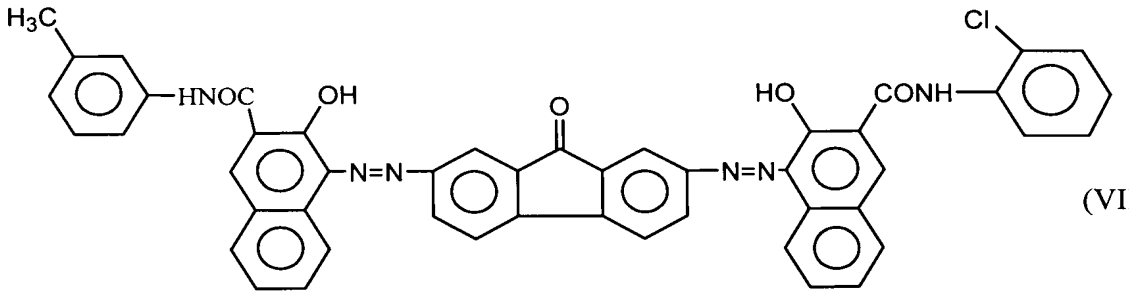
wherein said intermediate layer is obtained by coating an intermediate layer coating liquid on a peripheral surface of said aluminum drum;

wherein the photosensitive layer comprises:

a charge generation layer, and

a charge transport layer,

wherein the charge generation layer comprises, as charge generation materials which have spectral sensitivity in differing wavelength regions, **at least one phthalocyanine pigment and at least one asymmetric bisazo pigment which is a compound having the formula (VII):**



(VII)

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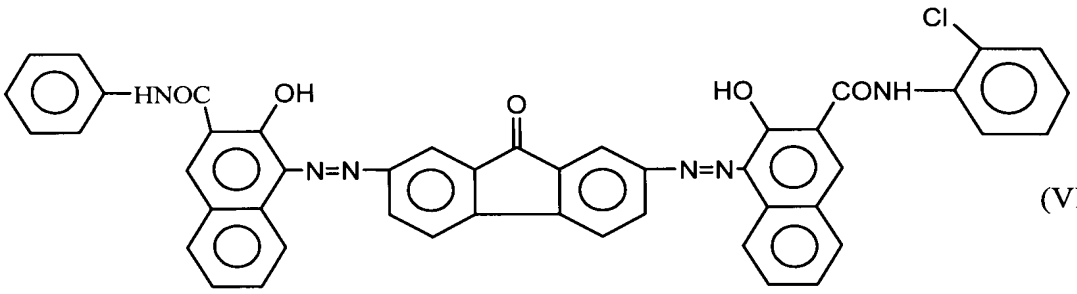
or is a compound having the formula (VIII):



(VIII)

;

wherein the phthalocyanine pigment comprises at least one of a τ-form metal-free phthalocyanine pigment or an X-form metal-free phthalocyanine pigment;

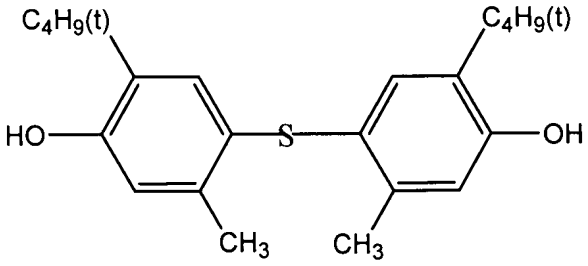
wherein the phthalocyanine pigment and the asymmetric bisazo pigment are present in the photosensitive layer in a ratio of 1:5 to 5:1 by weight;

and wherein the charge transport layer comprises from 0.9 to 5 parts by weight of an organic sulfur-containing compound, based on 100 parts by weight of a charge transport material;

wherein said organic sulfur-containing compound is selected from the group consisting of compounds having the following formulas III-3 and III-6, S-1, S-2 and S-3:

$S\text{-}(CH_2CH_2COOC_{12}H_{25})_2$ (III-3),

$S\text{-}(CH_2CH_2COOC_{18}H_{37})_2$ (III-6),



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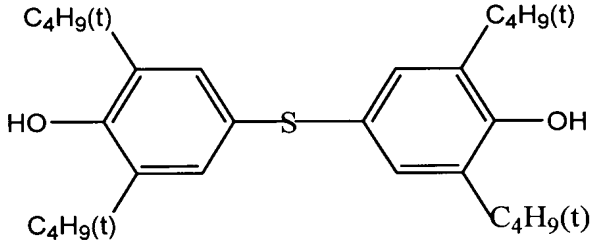

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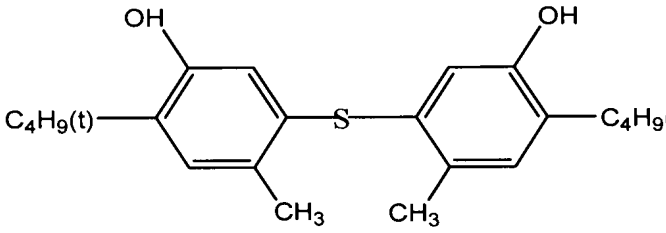


(S-3)

,

wherein n is an integer of from 8 to 25;

wherein said photoreceptor is suitable for a reverse developing method in an electrophotographic image forming apparatus which comprises a contact charger;

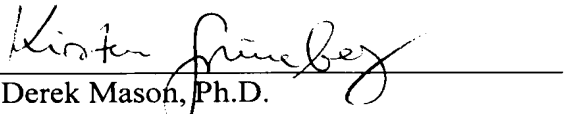
wherein said intermediate layer has a thickness of 3 to 10 μm.

Suzuki '311, JP '250, JP '890, Schaeffert, Tanigawa, and Kanoto, Kakuta, or Byrne do not cure the defects of the claims of US 7,192,677. Thus, the double patenting rejections should not be applied to Claims 84-86.

Applicants submit that the present application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



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